#### DOCUMENT RESUME

ED 276 534 PS 016 233

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TITLE The Social Transmission of Economic Concepts.

PUB DATE Sep 86-

NOTE 20p.; Paper presented at the Annual Developmental Psychology Conference of the British Psychological

Society (Exeter, England, September 19-22, 1986).
Reports - Research/Tachnical (143) --

PUB TYPE

Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.

DESCRIPTORS Cognitive Development; \*Concept Formation;

\*Economics; Foreign Countries; \*Individual Development; \*Preschool Children; Preschool

Education

IDENTIFIERS \*England; Gender Representations; \*Representational

Response

#### ABSTRACT

A study of the development of representations of economic life in 110 young children of 3 to 5 years of age is. reviewed to identify the sources of the children's representations. In addition to noting the importance of the public availability of adult representations, the results indicate the significance of developmental processes. In particular, findings indicated that representations of gender emerge as one of the principal means through which the developing child is able to assimilate features of economic life. The development of economic concepts may be construed as a process of social transmission in which complex interactions occur between the child's development and adults' social representations of economic life. (Author/RH)

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## THE SOCIAL TRANSMISSION OF ECONOMIC CONCEPTS

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British Psychological Society Developmental Psychology Annual Conference Exeter, England, September 19-22, 1986

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The Social Transmission of Economic Concepts

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### ABSTRACT

A study of the development of representations economic life in 110 young children aged 3-5 years is reviewed with the aim of identifying the sources of these representations. As well as noting the importance of the public availability of adult representations, the results also indicate the significance of developmental processes, the development of general cognitive functions and the development of specific socio-cognitive struc-In particular, representations\_of\_gender emerge as one of the principal means through which child is able to assimilate developing features of economic life. The development of economic\_concepts may be construed as a process\_of social transmission in which there are complex interactions between the child's development and adult social representations of economic life.

The Social Transmission of Economic Concepts

## 1. Introduction

It is a commonplace to observe that the representations of economic life which develop through childhood are contingent upon the social relations within which children develop. In a banal sense this must obviously be the case: if children lived in a society which organised its economic affairs in a different manner, then they, too, would come to think about economic life in a correspondingly different way: just as children living in a culture which reasoned mathematically to the base 2 would also come to think mathematically in binary terms. It is not the fact that representations of economic life are contingent upon socioeconomic relations, but rather the nature of this contingency which is of interest and which prompts a further consideration of the process through which children come to represent economic life in such a way as to reproduce the social representations of the community to which they belong. This theme is, then, a particular example of the problem of comprehending the process through which ideas are



transmitted from one generation to the next. Such problems are of particular interest to contemporary attempts to integrate social and developmental perspectives in psychology into a coherent and unified theoretical framework.

I shall approach this topic by considering some of the results of our study of developing economic concepts in young children aged 3 to 5 years. Before turning to this research, however, I should like to record an in vivo example of the way in which notions related to economic life appear spontaneously in young children. This was reported to me by the parents of a young boy aged 2 years 9 months who knew of my interest in this topic. One morning Jack was somewhat unhappily watching his father get ready to go to work and announced that "Mens go to work, mummys don't". This assertion of a sexual division of labour was in fact an affront to the liberal conscience and ideology of his parents. His mother explained to him that this was not so, that she herself went out to work, that when she went and sat at the typewriter that, too, was work. Jack, remained unmoved by these assertions of liberal ideology. His response was to note that "If noone goes to work then it's Saturday".

There is much of interest in this anecdote. Notice, for instance, how Jack first formulates his knowledge "Mens go to work, mummys don't" so that while the male gender is a substantive presence, the female gender has been completely

absorbed into the social role of mothering. It is not women who don't work but mummys. Jack's assertion illustrates one theme which was also characteristic of our research interviews - young children are not without ideas about economic life. Even among such young children there are representations of the social world, though these may be irganised around principles somewhat different from those informing adult representations. Moreover, Jack's association of men with the world of work and women with the domestic life was also a feature of the representations of the children interviewed in our research.

There is something else in Jack's expression relevant to the theme of this paper. One kind of explanation for the transmission of representations of social life would assign a dominant influence to familial sources. Children, in these terms, could be expected to reproduce the ideas and values of their parents. But Jack has done precisely the opposite and asserted a correlation between gender distinctions social division of labour in a manner which actually reverses the values held and asserted by his parents. seems to be responding to influences which come from outside the family, but which are also powerful enough to negate the active influence of his parents. Indeed, when his mother remonstrated with him about his representations of economic life he remained unmoved by her atttempt at influence. His response was tangential, as though he was not able to absorb the information she was presenting to him. Contrary to what



be in touch with aspects of society from which they seem, at first sight, to be remote.

One way of examining the process of transmission is to compare children's representations of economic life to those current in the adult community. What kind of relationships can be identified? To what extent are children's ideas similar to those of adults and to what extent do they differ? Plotting a pattern of similarities and differences in this way will at least indicate the extent to which the transmission of economic representations corresponds to a simple, or direct, transfer of knowledge, and to what extent it is mediated through developmental and social processes.

This review of our research is an initial attempt at plotting such a pattern. It is limited in so far as data were only collected from children, so that we have had to rely on other sources for a sense of the corresponding adult representations. While this is not a perfect procedure it ought to provide a useful guide to which questions can be intelligently asked by researches in this area.

#### 2. Subjects and Method

All of the data reported below are drawn from a series of interviews undertaken with children aged 3 to 5 years from four inner London nursery and primary schools. Altogether 110 children were interviewed, divided into three age



groups with mean ages of roughly 3 1/2, 4 1/2 and 5 1/2 years. The age and gender distribution of the subjects is shown in Table 1.

TABLE 1: AGE AND GENDER DISTRIBUTION OF SUBJECTS

AGE GROUP -		3 1/2		4 1/2		5 1/2	
GENDER	÷	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS
N	-	10	16	23	20	22 23	19
MEAN AGE	-	3.8	3.7	4.6	4.6		5. <u>6</u>

The interviews were conducted in quiet areas adjacent to the classrooms and consisted of a series of questions built around a variety of tasks. The tasks are described in the following sections with the corresponding data.

# 3. Relationships between Child and Adult Representations.

### 3.1. Similarities

The simplest relationship to envisage is one of similarity, where children's representations resemble those of the adult community and where, at least across the age range considered in this study, this similarity is not subject to developmental variation.



## 3.1.1. Male and Female Access to Occupational Roles

An example of such a relation can be seen in the distinction which children made between domestic and occupational settings in relation to male and female access to roles. For this task children were shown five photographs of men in occupational roles (doctor, police, shopwork, farmer and factory work) and three photographs of women engaged in domestic activities (feeding a baby, sweeping, washing up). For each photograph children were asked "What is this person doing?" and then "Can a lady do this job?" or "Can a man do this as well?" as appropriate.

Responses were divided into two categories. Either children said that the opposite gender could perform the task - equal access - or they maintained a restriction on access to one gender only - restricted access. The same analytic frame was used to sum children's responses to produce an occupational access and a domestic access score. In each case children were given scores of 1 if they made equal access judgements to each of the figures in the appropriate setting, or a score of 0 if they made a restrictive access judgement to any of the figures. These scores were then compared in a repeated measures analysis of variance with age group and gender as between-subjects variables. The only significant effect was for the access scores which showed children of all age groups and both genders more readily granted equal access in domestic settings (mean=0.51) than



in occupational settings (mean=0.35; F=7.46; df=1, 103; .01>p);

In this case it appears that a contrast between occupational and domestic settings is established as meaningful even for children as young as 3. There appears to be neither developmental nor social variation associated with this distinction.

A closer examination of children's judgements about the occupational roles in this task emphasises the similarity with adult conceptions. Responses that only men could undertake these roles were not distributed evenly across all five occupations. Table 2 lists the rank order of "men only" attributions for these five occupations; these rankings did not vary as a function of age and gender.



TABLE 2: RANK ORDER OF MALE RESTRICTED ATTRIBUTIONS TO OCCUPATIONS

RANK	OCCUPATION	Z 'MEN ONLY' ATTRIBUTIONS	Z WOMEN IN THE LABOUR FORCE (*)
i,	FARMER	43.0	ī.3
<del></del>	FACTORY WORKER	4 1 . 5	5 ù Ö
<b>3</b> .	POLICE	30.3	9.8
4.	DOCTOR	21.3	ē 3 . Š
<u>=</u> 5 :	SHOP WORKER	17.6	59.9

(\*) Data taken from Murgatroyd (1982), who derived her figures from the 1979 Labour Force Survey, which groups occupations into much wider categories than the photographic stimuli. In particular the entry for 'doctor' is taken from Murgatroyd's category of 'professional and related in welfare and health'. Other estimates for the proportion of women doctors are much lower. Mackie & Pattulio (1977), for example, quote a figure of 27%.

What is particularly interesting about this rank order is that it corresponds in large measure to the ranking of these occupations in terms of the actual proportion of women in the labour force in these occupations (cf. the second column in Table 2).

Of course these data do not refer to the representations of female participation in the economy held by the adult community, but to the actual number of women in these occupational categories as revealed by government survey.

Nevertheless, when one considers those public representations available to young children, in comics or books or



t.v. etc., it remains the case that women are rarely portrayed as being farmers or factory workers, while they may be observed more frequently in the roles of shop workers or doctors. In short, children by the age of three appear to have already reproduced within their representation of economic life the marking of occupations for gender.

It is this sense of the straightforward reproduction of adult representations by even very young children which is characteristic of this kind of similarity relations between adult and child representations, as though there were no mediation in the process of transmission between the one and the other. Theoretically these examples would correspond to a view of the transmission process as simple reproduction, that is, that children's understanding reproduces adult representations independently of any developmental process or social variation.

## 3.2. Differences

More complex examples of transmission are those in which children's representations differ significantly from those of adults. In these cases it can be assumed that there is some developmental process occurring within the age range considered in this study. One might expect that children's representations of economic life would progressively come to resemble those of adults. This view is essentially a crude developmental extension of the notion of transmission as simple reproduction. It construes the development of



economic representations as the accretion of items of economic knowledge by the child and would predict a simple developmental function in which, with age, children's representations progressively come to resemble those of adults.

In point of fact the data collected in this research provided no examples of such straightforward developmental effects. There were age effects in the analysis of the data, but these were either main effects in which children's representations became less veridical as they became older, or interaction terms in which the effect for age was modulated by variations due to gender.

# 3.2.1. Developmental Reproduction - Relative Pay

An example in which a main effect shows children's judgements becoming less veridical with age is a task concerned with the relative pay of men and women for doing the job. Pairs of photographs showing men and women in six occupations (doctor, police, shopkeeper, farmer, worker and teacher) were shown to children who were asked whether the man and woman were paid the same or if one was paid more than the other. Responses were assigned to four categories: (i) Don't know, or not paid; (ii) men paid more; (iii) women paid more; and (iv) both men and women paid the same. Responses across all six occupations were summed within these categories to produce a score of between 0 and 6 for each type of response.



A two-way (Age x Gender) analysis of variance of the 'same' responses produced only an age main effect (F=7.59; df=2; 184; p<.001) which showed that the proportion of judgements increased with age (mean score at 3 years = 1.31; at 4 years = 2.42; at 5 years = 3.32). We have diselsewhere (Duveen & Shields, 1984; 1985) the cussed interpretation of this result as a reflection of children's increasing usage of a schema of equality which may become tempered in older children as inequalities become legitimated (cf. Leahy 1983). The relevance of this result for the present discussion is that it indicates that children's representations of economic life are mediated through developmental processes. Theoretically this interpretation corresponds to a view of transmission as a process of developmental reproduction.

### 3.2.2. Social Reproduction

representations a number of social variations were also observed as a function of gender. In this context gender refers both to children's own gender as well as to the gender marking of social roles and activities, indeed significant effects were frequently due to the interaction of these two parameters.

One example of this type of effect can be seen in the analysis of the 'men paid more' and 'women paid more' responses to the relative pay task described in the previous



section. Scores in these two categories were analysed as a repeated measures variable in a three-way ANO' with age and child's gender as the between-subjects variables. The results showed both a significant response-category main effect as well as a response-category by child's gender interaction. The main effect (F=25.19; df=1, 104; p<001) showed that men were frequently judged to be paid more (mean=1.68) than were women (mean=0.63). The interaction term (F=10.05; df=1, 104; p<.01) shows that this difference is much more exaggerated in boys than it is in girls (see the mean scores in Table 3).

TABLE 3: PAY DIFFERENTIAL RESPONSES BROKEN DOWN BY GENDER

	MEAN NUMBER OF 'MEN MORE' RESPONSES	MEAN NUMBER OF 'WOMEN HORE' RESPONSES
GIRLS	1.24	0 : 8 4
BOYS	ž. 13	0,42

A second example occurs in a task concerned with role multiplicity. Children were shown photographs of four occupational roles, two illustrated by male figures (doctor and policeman) and two illustrated by female figures (bus conductress and factory worker). For each photograph the child



was asked if the figure had a home; where they are and slept; whether they could be a parent; and if they undertook domestic chores. Responses were separated into two categories. If the child said that the figure had a home, are and slept at home, could be a parent and did housework, this was judged to demonstrate a recognition of role multiplicity and awarded a score of 1. If the child made any exceptions to these points their responses were construed as lacking a sense of role multiplicity and given a score of 0. Responses were summed within gender categories so that each child was assigned two scores ranging from 0 to 2, one for the female figures and one for the male figures.

A three-way ANOVA, Age by Gender by Figures, with repeated measures on the Figures factor (Female Figures and Male Figures), produced a significant main effect for Figures and a Figures by Gender interaction. The main effect (F=46.86; df=1, 101; p<.001) indicated that female figures were more frequently construed as occupying multiple roles (mean=1.25) than were male figures (mean=0.68). Again this effect varied as a function of the child's own gender. In this case, however, the effect was more strongly marked among girls than among boys (see mean scores in Table 4).



TABLE 4: MEAN ROLE MULTIPLICITY SCORES

		FEMALE FIGURES	MALE FIGURES
i	GIRLS	1.52	Ö.73
	BOYS	1.00	0.64

In both these cases the representations expressed by children vary as a function of their membership of a gender group. This gender differentiation indicates one way in which the transmission of economic representations is a socio-psychological process, for what these children are asserting in their judgements is a particular social identity centered on gender. Elsewhere (Duveen & Lloyd, 1986) we have described the development of social identities as the process through which children come to situate themselves in relation to social representations of gender. It is within this framework that economic notions are also being elaborated.

### 4. Conclusion

Two types of influences can be seen in these studies of the transmission of economic representations. On the one hand there are developmental processes within the child which limit the cognitive possibilities open to the child for construing economic life. On the other hand their



membership of social groups, specifically gender groups, also acts as a limit on the emergence of economic representations.

Taking account of both of these influences becomes possible if we construe the development of social representations of economic life as the acquisition of particular social identities. Thus it is not simply differences between social groups which need to be considered in relation to variations in children's representations of economic life. In the terms of the perspective outlined here it is variations in social identities which are crucial.

A particular issue where further research is necessary is the identification of those criteria which lead to differentiated social identities in the sphere of economic life. For example, in Gustav Jahoda's famous study of the development of economic concepts in Zimbabwean children (Jahoda, 1983), their precocity over European children was associated with their closer engagement with the activities of setting prices in real markets. A European child's experience of buying and selling is typically limited to the perspective of being a consumer in well regulated shops where prices appear as a fixed attribute of goods for sale. These two sets of circumstances generate two distinct social identities. It may well be that cross-national comparisons are not associated with differentiated social identities if the actual social groups investigated share a more or less



similar relation to the field of economic activity. Conversely, comparisons of divergent social groups within nationalities may prove to be of interest.

In our own research categorical differentiation in the development of economic representations was established on the criteron of gender. Social representations of gender present the categories of 'male' and 'female' as set in distinct relations to economic life. Kay Deaux (1984) has recently argued that studies of gender need to move from a perspective based on individual differences to one which construes gender as a social category. This is indeed the case here where gender refers not only to the child's own gender, but also to social representations of gender as these are instantiated in the social marking of roles, occupations and activities for gender.

From a developmental perspective what is unusual in considering the question of the transmission of economic representations is that not all children elaborate similar conceptions. A cognitive-developmental perspective is a good basis for grasping communalities in children's undrestanding, but an insufficient one for investigating variations between children. Trying to account for these variations is the source of much of the complexity surrounding this issue:



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